

Design Review Report

Wylfa Newydd Associated
Development, Anglesey

DCFW Ref: 60

Meeting of 18th November 2015



Declarations of Interest

Panel members, observers and other relevant parties are required to declare **in advance** any interests they may have in relation to the Design Review Agenda items. Any such declarations are recorded here and in DCFW's central records.

Review Status

CONFIDENTIAL

Meeting date	18 th November 2015
Issue date	3 rd December 2015
Scheme location	Ynys Môn/Anglesey
Scheme description	Associated development to proposed Nuclear facility
Scheme reference number	60
Planning status	Pre-application

Declarations of Interest

None.

Consultations to Date

The Design Commission for Wales has been consulted previously on 9th December 2014 regarding the Wylfa Gateway site and on 9th June 2015 regarding a wider range of associated, off site and on site development. This meeting took the form of a full day discussion with the local authority present.

The Proposals

The first half of the meeting focused on the on-line and off-line improvements to the A5025. The second half covered on-site and off-site developments associated with the nuclear power station including the replacement Magnox AECC & DSL, Wylfa AECC & ESL, MEEG, simulator building, on-site worker accommodation and off-site worker accommodation. Some of these elements will be subject to Town and Country Planning Applications (TCPA) applications and some fall within the Development Consent Order (DCO) process via PINS for NSIPs.

Main Points

The Commission appreciated the update provided by the Horizon team and the opportunity to spend more time discussing the various elements of supporting development that will be coming forward as planning applications. The Commission was also pleased to welcome the local authority.

This is the third presentation and discussion with the Commission on this important project and there are some important general points that need to be covered before moving on to feedback on specific elements.

The Design Commission is confident that the engineering and important safety requirements are being met by the current team of engineers and designers. However, we have serious concerns about the design approach and resulting design quality of each element of the project individually, and in terms of their collective impact.

Whilst the engineering requirements are of the utmost importance, it is the design of the buildings and structures and their interaction with the landscape and settlements, with which local communities will engage, that have greatest impact. Therefore a very clear vision and commitment to design quality is required to ensure a positive legacy. This is not yet evident.

The correct design resources must be applied to achieve the quality required and even at this relatively early stage of design, project architects and landscape architects should be fully involved in the response to the site selection and concept design.

The need for vision and a strong design approach has been highlighted in previous reports but this has not yet been adequately addressed. A commitment to design quality must come from the client as well as the consultant team. As this is a development of considerable scale this point cannot be overlooked. It will have a significant and lasting impact on the Isle of Anglesey.

Consideration should be given to the development of design themes or principles that define the overall approach to design and contextual response and could be mapped during the design process with increased evidence of their application, as the detail emerges. A clear masterplan that places each building in its context will be important, so the context of each building and their interrelationship, or not, can be appreciated for subsequent reviews.

Issues regarding the language or 'families' of buildings and the design drivers inside and outside the site secure boundary, should be articulated. This early commitment to design discipline and narrative would underpin early consultation, provide clarity of intent and provide confidence to the local authority and stakeholders.

Given the scale of the project and its national significance the receiving authority and community should be fully consulted on the proposal and given clear, well presented and adequate information on the proposal, demonstrating that the promoter understands the context, and illustrating design intent and commitment as the project moves forward.

The following provides a more detailed response to each of the elements discussed within the meeting:

A5025 Highway Improvements

The overall design approach for the road, associated structures and landscape was not conveyed. This approach must respond to the character of each area with a clear articulation of how it does so, following clear analysis and the overall design vision. It must not be driven by the Environmental Impact Assessment (EIA) in the first instance. The EIA will serve to assess the impact of the proposals but there must first be a design

in place to assess. The EIA may then indicate that changes are required in places and appropriate amendments made to the design, but it is an iterative process starting with the landscape design. A series of sketches could help to convey the concept design.

One landscape principle that was put forward was that the proposed planting along certain lengths of the road will filter views but not screen the entire road and will reflect the nature of the surrounding existing landscape. In order to be convincing there needs to be evidence of the existing landscape features illustrated on the plans indicating where local woodland, hedgerows or trees are evident and how new planting relates to this existing character. Other design approaches should also be explored and it should be demonstrated that they have been considered and assessed, providing a clear rationale for the approach taken. Once established, the concept can guide the design decisions.

Positive decisions had been made regarding the rationalisation of some of the infrastructure required for the off-line highway development particularly around the Llanfachraeth viaduct. The single structure approach which accommodates the tributary, farmer's crossing and footpath is a much cleaner approach and can help to provide a more pleasant experience for walkers as well as a more elegant bridge solution. This could be developed further in the creation of clearly marked circular walking routes from the village that could incorporate the ecological features of the created pond as an educational walk.

The design of the viaduct structure is not yet determined but requires a clear and coordinated direction at this stage that will guide the design of this and other structures within the highway works. The whole appearance of the structure needs to be considered to ensure it has integrity i.e. is it a bridge in its own right or part of something larger? The design should take into consideration the view and experience from on the bridge, on the road, under the bridge and within the surrounding landscape. The demerits of rubble/stone parapets, for example, despite this type of wall feature being part of the local landscape should be fully considered. By contrast, any retaining walls that may support the bridge structure may successfully use this material vocabulary.

It is important to consider in more detail the intersection between existing and new landscape features. To convey this effectively existing landscape features should be shown on the proposal plans. It is positive to see that the spaces created by the highway interventions are being considered holistically.

Analysis is ongoing to determine how much noise mitigation is required.

Additional design work could add value to the ponds that will be created for surface water drainage. A narrative for how these ponds will sit in the landscape along the length of the road and their legacy value for the community should be considered. This could provide an opportunity for engagement with local groups or schools. Similarly, the development of a network of footpaths and associated signage could help to create meaningful connections through the area. The local junctions to the new road present an opportunity to make positive local interventions in the design.

Further work is being undertaken to understand the heritage of the area and the opportunities for subtle interpretation of this along the road.

Magnox AECC & DSL

An update was provided on the proposals for the replacement Magnox AECC and DSL which is to be located on the site formerly referred to as the Gateway Site. The use of the building by Magnox is for a limited period after which an alternative use will be sought for the building.

Further site analysis has been undertaken which has improved the siting and orientation of the proposed building and limited the extent of the security fencing. The nature of the proposed building presents an interesting design challenge in terms its location, which is neither 'rural' nor 'village', and the appearance of what is largely a benign building. This challenge has not yet been met as the domestic nature of the current design does not fit the initial use of the building and its future use is unknown. There are concerns regarding the use of timber in this location particularly in relation to its maintenance and longevity.

Several design approaches were discussed during the course of the review including:

- A landscape approach where the building becomes integrated in the landscape drawing on the local undulating fields, rubble stone wall vernacular or a building in a 'field'
- A rural approach that takes inspiration from surrounding agricultural buildings
- An industrial building of a simple form
- Part of the village

Whether the building becomes more or less visible, there needs to be a strong design concept and the design of the building and its surrounding landscape should support the concept. The designer must consider and justify the approach to be taken and then develop the design accordingly. Examples and local precedents can help with this. Whatever approach is taken a simple, rational and elegant design would be appropriate in this location.

The roofline of the current design helps to organise the site and its relationship with the landscape.

A less angular landscape approach could help the external works appear less alien in the landscape. For example the excess parking spaces could be downplayed in terms of materials.

The nature of the building envelope and where and why openings occur needs to be clear.

Whilst recognising that this is a Magnox facility, it will be the first building for the project and it therefore sets an important precedent for the wider project and the need for a positive design approach.

Horizon AECC & ESL

Two potential sites for the location of this facility were presented with limited design information at this stage. Further analysis of both sites will be required. At this initial

stage it appears as though the linear option to the east of the road would make use of what might otherwise be a leftover space.

The test of fit must ensure that the site can accommodate all of the security requirements. It is understood that a brief for the security requirements is currently being developed.

As this building has limited active use and could be located close to a road where people will be moving past it quickly it could be considered as more of an 'object' in the landscape. This could lead to some innovative, creative exploration of form and cladding.

MEEG

Again there is still a decision to be made about the location of this facility and the location will be a significant driver for the design rationale. The nature of the facility means that it will not make an especially positive contribution to a settlement unless designed very carefully and this should be considered in the review of brownfield sites. Once a site has been selected, taking into account relevant planning considerations, a site and context analysis must be undertaken and the design developed in response to this. Attractive precedents exist for contemporary semi-industrial buildings with creative approaches to building envelope design and these should be explored as part of an overall project building language. Curtilage treatment and servicing/access requirements need to be sensitively designed and scaled appropriately to respond to context.

Simulator building

The needs of this facility were only briefly discussed but the scale and activity housed within the building will be significant and needs careful articulation and a clear narrative. It will be located on site, is of considerable scale (approximately 75m x 40m x 10m) and will be used for training.

General design considerations

Consideration needs to be given to all of the proposed buildings (including the three addressed above) collectively so that informed and positive decisions can be made about their design and their impact can be understood.

A one page summary that sets out the basic requirements of each of the buildings and their mass, will help to provide a big picture. An overall plan identifying all of the proposed developments is still lacking. The location parameters and performance requirements are well understood by the team and are being adequately addressed but the design approach is not. Presenting all of the proposed buildings on a single drawing as a simple cross section will enable the relative scale and purpose of each building to be easily understood.

A design guide could help to set out principles for the approach to the design of all of the buildings. It is recognised that each case is very different but such a document could set out an expected standard and commitment to good design that all parties sign up to. The proposals presented to date are overtly 'engineering' and 'operationally' led.

The Design Commission advocates the appointment of a 'design champion' who can work across the different teams and disciplines to ensure that the commitment to design

quality is maintained. The design champion must have experience of working on major infrastructure projects and have an outstanding track record for design quality in their field. The role and scope of influence of the design champion must be established to ensure that their input has weight. There may also be merit in bringing in other specialisms to the design team such as a colourist or an artist who can help to deal with the challenge of integrating very large buildings into the largely rural context.

On-site worker accommodation

This accommodation will house 500 workers throughout the construction period for 11-14 days at a time. The accommodation will be removed post-construction but this could be a period of ten years.

The layout presented at review was indicated as for the purpose of checking the size/capacity of the site to ensure it could adequately cater for the needs of the facility.

We have serious concerns about the approach and the layout of the layout presented. We would expect any development proposal to go through the proper stages of preparing a brief and vision, site analysis, concept design and detailed design which responds to the vision, the site and principles of good design. The current approach fails to take adequate consideration of the needs of the accommodation or its users as a living environment, the constraints and opportunities of the site and landscape requirements.

In particular, ensuring that the development sits appropriately within the special landscape within which it will be located is likely to require more land than indicated in the layout plan. The formal arrangement of trees within the car park is completely out of context in this location. Rather, a landscape-led approach is required in this location where the proposed buildings fit into the landscape rather than trying to fit some landscaping around the buildings.

It is expected that the final layout will not segregate the uses as shown in the 'fitting plan' but that it will be treated as a mixed use development with an appropriate integration of uses.

This proposal needs to be seen within the context of the wider construction programme so that its context and movement connections can be understood.

Off-site worker accommodation

This form of accommodation was looked at very briefly as a mix of sites are being looked at and an appropriate location has not yet been decided on. The possible scale of the accommodation is very large and as such needs very careful planning. The comments from the previous review are still applicable, as are the comments made above in relation to on-site accommodation.

There needs to be a greater consideration of the workforce as 'people' and address their needs as well as the needs of, and impact on, the surrounding community. There is a direct link between the environment in which people live and their health and wellbeing and therefore Horizon should have a vested interest in ensuring that the worker accommodation is a pleasant and positive place to live. More thought needs to be given to the quality of life that the accommodation offers. This should also inform whether the

development should be approached as a single or multiple site strategy. There needs to be greater consideration of and response to the site/s.

We would suggest looking at other models of similar scale and potential impact development to inform the design approach.

Next Steps

Horizon suggested that the next review could take place in Anglesey and include a site visit and presentation on the proposed approach to the power station site. We are keen to take this approach and will work with the Horizon team and local authority to make arrangements. It is important that the designers are present for this session.

Horizon must ensure that adequate resources are dedicated to design to address the concerns expressed in this report. At the next review we would like to see a clear commitment to good design through a design guide or design champion as highlighted above. We would also expect to see site analysis and a concept for each of the developments.

The Design Commission for Wales can offer support in devising and shaping briefs for the worker accommodation and other development types. These would also benefit from being supported by a wellbeing/social strategy from Horizon that sets out an approach to staff and the community.

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A Welsh language copy of this report is available upon request.

Attendees

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Design Workshop Panel:

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Amanda Spence, Design Advisor, DCFW

Panel

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